REMARKS

In response to the non-final Office action mail-dated 03/11/09, reconsideration of the application, as amended, is respectfully requested.

This *Amendment* is being filed via facsimile transmission in accordance with 37 CFR 1.8.

By this *Amendment*: claims 2-14 and 16-20 are canceled; claims 1 and 15 are amended; claims 21-38 are added. Thus, by virtue of this response, claims 1, 15, and 21-38 are in the application; claims 1, 15, and 34 are independent claims.

Fees

Time Extension Petition

In accordance with 37 CFR 1.136(a) and 37 CFR 1.17(a), the Office is respectfully requested to extend the time period for filing a response to the non-final Office action mail-dated 11 March 2009, and to charge, for a **one-month extension** of time under 37 CFR 1.136(a), the fee of **$130** to **Deposit Account No. 50-0958.**

Other Fees; Overpayments

Although no other fee is believed to be due in association with this response to the 03/11/09 Office action, the Office is

respectfully requested to charge any other required fee to the same **Deposit Account No. 50-0958**. The Office is respectfully requested to credit any overpayment to the same **Deposit Account No. 50-0958**.

Amendments to the Specification

On Applicant's initiative, minor informalities are corrected in paragraphs [0005], [0010], [0022], and [0051].

Rejections under 35 USC 112

Claims 16-20 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement.

Claims 1-20 are rejected under 35 USC 112, first paragraph, because the specification does not reasonably provide an adequate scope of enablement for specified limitations describing steps.

Claims 16-20 are rejected under 35 USC 112, first paragraph, because the specification does not reasonably provide an adequate scope of enablement for specified limitations expressed in terms of "means for."

Claims 1-5 and 7-20 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point

out and distinctly claim the subject matter which applicant regards as the invention.

Claims 16-20 are rejected under 35 USC 112, second paragraph, because the specification does not adequately define specified limitations expressed in terms of "means for."

In consideration of the claim amendments herein, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. 112, first and second paragraphs.

Rejections under 35 USC 101

Claims 1-14 are rejected under 35 USC 101 because the claimed invention is directed to non-statutory matter.

In consideration of the claim amendments herein, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. 101.

Independent claim 1 is extensively amended, but remains a method claim. Applicant believes that claim 1 passes muster for patent eligibility under 35 U.S.C. 101, based on the principles expressed by the CAFC in *In re Bilski*, 545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008). According to the Bilski Court's two-part machine-or-transformation test, in order to be statutory under 35 U.S.C. 101, the claimed method must *either* (1) be tied to a particular machine or apparatus, *or* (2) transform a particular

article into a different state or thing.

Claim 1 is respectfully urged to satisfy the transformation requirement under *Bilski*, because claim 1 describes transformation of data representing physical objects -- namely a ship, and in particular the storerooms and stowage aids onboard the ship.

Although Applicant believes that claim 1 passes the *Bilski* test, for good measure Applicant herein adds claims 22-26. The claimed conveying of information, or making available of information, to a ship design participant is respectfully urged to satisfy the transformation requirement under *Bilski*. The claimed implementation of a computer to perform the steps is respectfully urged to satisfy both the machine requirement (e.g., using a computer) and the transformation requirement (e.g., transforming signals) under *Bilski*, although either requirement would suffice. The claimed display of information is respectfully urged to satisfy both the machine requirement (e.g., using a computer and/or a computer display) and the transformation requirement (e.g., electronically transforming data into a visual depiction) under *Bilski*, although either requirement would suffice; see Bilski's discussion of *In re Abele*, 684 F.2d 902, 214 USPQ 682 (C.C.P.A. 1982), regarding electronic transformation of data.

Rejections under 35 USC 103

Claims 1-5 and 9-20 are rejected under 35 USC 103(a) as being unpatentable over Lohmann et al., U.S. Patent Application Publication 2002/0026296 A1, publication date 28 February 2002 (hereinafter, "Lohmann et al.").

Claims 6-8 are rejected under 35 USC 103(a) as being unpatentable over Lohmann et al., in further view of Official Notice.

In consideration of the claim amendments herein, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. 103(a).

Lohmann et al.'s invention is entitled "Method of Automatically Configuring Arrangements of Components and Automatically Generating Production Documents." Lohmann et al.'s method is quite different from Applicant's claimed invention.

A fundamental distinction between Lohmann et al.'s method and Applicant's claimed invention is the following: Lohmann et al.'s method seeks to determine how to optimally fill a known bottle. In contrast, Applicant's claimed invention seeks to determine how big a bottle needs to be in order to accommodate the overall things inside. Applicant's "bottle" is a ship.

Lohmann et al. perform data processing to automatically configure arrangements of components within predetermined fixed

spaces. Lohmann et al.'s data processing includes a "configuration tool" and a "drawing module" (Lohmann et al., e.g., paragraphs [0009], [0012], and [0013]; abstract; claim 1). Lohmann et al. optimally configure the components ("defining the spatial arrangement, and also optimizing the functional position and/or the number or quantity of the components") according to a "defined rule set" in their configuration tool. (Lohmann et al., paragraph [0009]) Lohmann et al. also disclose their use of CAD (computer aided design) as part of their assessment. (Lohmann et al., paragraph [0031]).

Lohmann et al. depend on a known product -- i.e., a specific aircraft type -- with a set of build drawings that provide a specific known geometry. Lohmann et al. determine a specific internal (aircraft) arrangement based upon the input of a detailed known geometry. Lohmann et al.'s method is based upon user inputs of specific known geometries of compartments and of components to be arranged. Lohmann et al. begin with a required known geometric compartment shape and then use "parametrically predefined components" (Lohmann et al., paragraph [0013]) to optimize arrangements.

In contrast, Applicant's claimed invention renders estimates toward predicting the necessary size of a ship to carry all of the required stores. Applicant's claimed invention is based on geometric areas (length times width) and dimensions (length and width) of rectangular shipboard storerooms. Applicant's claimed invention does not rely on any computer-

aided or manual layouts to render any of Applicant's estimations. Applicant's claimed invention can predict sizes needed to encompass known stowage aids. Applicant's claimed invention is driven by requirements, rather than by a specific ship design.

Applicant's claimed invention produces, *inter alia*, an estimate of the overall area requirements for shipboard storerooms. It can be observed that Applicant's claimed invention operates in a "feasibility level," as distinguished from a "detailed level" such as the detailed level in which Lohmann et al. operate. Applicant's estimates are produced while the ship is still in a "feasibility level" stage of design.

Applicant's claimed invention uniquely features its compartment utilization factor (CUF). Applicant's claimed compartment utilization factor is neither taught nor suggested by Lohmannn et al. The main premise of Applicant's claimed compartment utilization factor is that the efficiency of a shipboard storeroom to fill its usable area with as many stowage aids as possible is dependent upon the length-versus-width factor of the storeroom and the type(s) of stowage aids used within the storerooms. This combination of length-to-width ratio and stowage aid type determines the compartment utilization factor.

The claim amendments and new claim recitations herein are

fully supported in Applicant's disclosure. In particular, support for amendments herein in independent claims 1 and 15, and for recitations in new independent claim 35 and new dependent claims 27-29, 31-33, and 36-38, is found in Applicant's disclosure, e.g., in paragraphs [0026] and [0051]. Support for recitations in new dependent claims 21, 30, and 35 is found in Applicant's disclosure, e.g., in paragraphs [0074] and [0075), and in Figures 4, 6, and 7.

To recapitulate, Lohmann et al. neither teach nor suggest the following combination of features and elements of Applicant's claimed invention as variously recited in Applicant's independent claims 1, 15, and 34:

- selecting plural stowage aid types, each said stowage aid type being characterized by a stowage aid net volume and a stowage aid footprint area
- estimating the total volume of items to be stored in each said stowage aid type
- estimating the total stowage aid deck area required for each said stowage aid type, said estimating of the total stowage aid deck area including calculating the estimated said total volume of items to be stored in each said stowage aid type, multiplied by the stowage aid footprint area, and divided by the stowage aid net volume
- establishing three longitudinal ship sections, said longitudinal ship sections being the forward ship section, the mid ship section, and the aft ship section

- selecting plural rectangular storeroom types, each said rectangular storeroom type being characterized by a storeroom area and lengthwise-widthwise storeroom dimensions, each said rectangular storeroom type differing from every other said rectangular storeroom type in at least one of said storeroom area and said lengthwise-widthwise storeroom dimensions

- designating a sectional percentage for each said rectangular storeroom type with respect to each said longitudinal ship section, said sectional percentage being the percentage of total rectangular storerooms of said rectangular storeroom type that are in said longitudinal ship section

- estimating a compartment utilization factor for each said rectangular storeroom type with respect to each said stowage aid type, said compartment utilization factor being indicative of the capacity of said rectangular storeroom type to contain at least one said stowage aid type, said compartment utilization factor being defined in terms of the net volume of said rectangular storeroom type divided by the gross volume of said rectangular storeroom type

- estimating the total storeroom deck area required for each said rectangular storeroom type with respect to each said longitudinal ship section, said estimating of the total storeroom deck area including summing calculations of the estimated said total stowage aid deck area required for each said stowage aid type, multiplied by the designated said sectional percentage for each said rectangular storeroom type, and divided by the estimated said compartment utilization factor for each said rectangular storeroom type

Applicant's dependent claims 21-33 and 35-38 are believed to be allowable at least for the reasons that Applicant's independent claims 1, 15, and 34 are allowable, and may be allowable for additional reasons by virtue of additional limitations that are neither taught nor suggested by Lohmann et al.

In view of the foregoing, Applicant respectfully requests allowance, or indication of allowability, of claims 1, 15, and 21-38 as presented herein.

Examiner Feeney should please not hesitate to call the undersigned at telephone no. 301-227-1834 if there are any questions in this matter.

Respectfully submitted,

Howard Kaiser 10 July 2009

HOWARD KAISER date
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10 July 2009